HW#82: Trig Application Problems

Geometry

Due: Wednesday, Feb 18th

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_

FAILURE TO WRITE IN COMPELTE SENTENCES OR SHOW ALL WORK WILL RESULT IN LASALLE.

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| --- | --- | --- | --- | --- |
| Criteria for Success | Did you…   * Correctly identify the sides (opposite, adjacent, hypotenuse)? * Use the correct trig ratio? * Analyze your answer: Does it make sense? Did you answer the question completely? | | | |
| SOLVE FOR X Find the length missing side labeled as *x*. Round to the nearest tenth. | | | | |
| 1. ../../../Desktop/Screen%20Shot%202016-02-15%20at%209.21.57%20AM.png | | 2.  ../../../Desktop/Screen%20Shot%202016-02-15%20at%209.22.00%20AM.png | | 3.  ../../../Desktop/Screen%20Shot%202016-02-15%20at%209.22.04%20AM.png |
| TRIG APPLICATION Based on the given information, use trig to solve each problem. Remember, the trig function you choose will depend on what you’re given and what you’re looking for! | | | | |
| 1. ../../../../../Desktop/Screen%20Shot%202016-02-15%20at%209.17.58%20AMFind the shadow cast by a 10-foot lamp post when the angle of elevation of the sun is 58°. Find the length to the nearest tenth of a foot. | | | 1. A nursery plants a new tree and attaches an eight foot wire to help support the tree. The wire is also tied to a stake in the ground. The ground and the wire make a 42° angle. Find to the nearest tenth of a foot, the height of the connection point to the tree.   ../../../../../Desktop/Screen%20Shot%202016-02-15%20at%209.18.12%20AM | |
| 1. A boy flying a kite lets out 300 feet of string which makes an angle of 38 with the group. Assuming that the string is traight, how high above ground is the kite? | | | | |

Part II – Review

Review is a chance for YOU to practice skills that we have already learned through out the year.

Choose 4 of the 6 problems below and complete them as your review.

|  |  |
| --- | --- |
| 1. Simplify. Your answer should contain only positive exponents.  ../../../../../Desktop/Screen%20Shot%202016-02-15%20at%209.35.07%20AM | 2.   a) Find the slope of the line.  b) Write the equation for the line in slope-intercept form.  ../../../../../Desktop/Screen%20Shot%202016-02-15%20at%209.36.37%20AM |
| 1. Find the missing side labeled *x*. Your answer should be in simplified radical form.   ../../../../../Desktop/Screen%20Shot%202016-02-15%20at%209.38.15%20AM | 1. One of the angles in an isosceles triangle is 50°. Decide which of the following angles is a possibility for another angle in the triangle (there may be more than one!) and explain why it is possible or why it is not possible. 2. 30 3. 50 4. 80 5. 130 |
| 1. Find the area and perimeter of the shape below. | 1. Solve for *x* and *y*.   ../../../../../Desktop/Screen%20Shot%202016-02-15%20at%209.44.55%20AM |